

10/545191  
JC20 Rec'd PCT/PTO 10 AUG 2005

PCT/EP2004/001139

TRANSLATION OF INTERNATIONAL (PCT) AMENDED CLAIMS

(INTERNATIONAL PUBLICATION NO. WO 2004/069057)

DP2/ KUCH9.COV7

According to the International Preliminary Examination Report

- 5 1. A device for tamponade of body cavities, for example also for purposes of  
secure mechanical anchoring of a catheter, comprising a flexible tube  
segment (2) having an inner wall (4) and an outer wall (6) that enclose a  
hollow space (8), so that said tube segment (2) is inflatable, said tube  
10 segment (2) being fashioned without through-passing support bodies in such  
a way that a displacement of tube wall material between said inner wall (4)  
and said outer wall (6) of said tube segment (2) is possible as inflation  
proceeds,  
**characterized in that**
  - 15 a) said tube segment (2) has two ends (7,9), both of which are fastened to  
the same closing element (10), so that a torus geometry is striven for as  
said inflatable tube segment (2) is filled,
  - b) said closing element (10) being in the form of a pipe nipple by means of  
which said two ends (7,9) of said tube segment (2) are joined together  
fluid-tightly.
- 20 2. The device according to claim 1, characterized in that at least said outer wall  
(6) is thin-walled and elastically expandable.
- 25 3. The device according to either of claims 1 and 2, characterized in that at  
least said outer wall (6) of the tube body segment (2) has a wall thickness of  
a few microns.
- 30 4. The device according to one of claims 1 to 3, characterized in that said tube  
segment (2) consists of a transparent material.
- 35 5. The device according to one of claims 1 to 4, characterized in that said tube  
segment (2) consists of a polyurethane, a polyurethane/polyvinyl chloride  
mixture, or a comparable polyurethane-based material or a polymer having  
comparable expansion and processing characteristics.
6. The device according to one of claims 1 to 5, characterized in that said tube  
segment (2) is arranged for the reversible, sealing securement of a catheter  
at the end of a catheter shaft (15).

7. The device according to one of claims 1 to 6, characterized in that said tube segment (2) is formed by invaginating a single-walled tube section (1).
- 5 8. The device according to one of claims 1 to 7, characterized in that at least one end (9) of said tube section (1) is attached to a catheter shaft (15).
9. The device according to one of claims 1 to 8, characterized in that a channel (13) for the delivery and/or discharge of a fluid opens into the interior space  
10 (8) formed by said walls (4, 6) of said tube segment (2).
10. The device according to one of claims 1 to 9, characterized in that said tube section (1) or a portion thereof is preformed as a single-walled tube with the shape of a roll before being fashioned into a tube segment (2) by  
15 invagination.
11. The device according to claim 10, characterized in that the bulge produced vertically to the plane of rotation of said tube segment (2) by said  
20 invagination is thickened by said preforming.
12. The device according to claim 10, characterized in that said tube section (1) is preformed in such a way that the tube portion (3) that forms the inner wall of said tube segment (2) after invagination is smaller in cross section and has a greater wall thickness than the tube portion (5) forming the outer wall (6).  
25
13. The device according to one of claims 1 to 12, characterized in that said tube portion (3) is fashioned with a uniform wall thickness and a uniform inner diameter.
- 30 14. The device according to one of claims 1 to 13, characterized in that said tube segment (2) is implemented with a residual volume.
15. The device according to one of claims 1 to 14, characterized in that said channel (13) is connected via a flexible connecting tube to a valve (14) disposed outside said tube segment (2).  
35
16. The device according to claim 15, characterized in that said valve (14) is implemented as a valve lip.

- 5
17. The device according to one of claims 1 to 15, characterized in that provided as valve (14) is a circular sleeve made of flexible material and disposed between said tube ends (7, 9).
18. The device according to one of claims 1 to 17, characterized in that slid onto said tube segment (2) is a clamping closure (21) having a longitudinally displaceable sleeve (22).
- 10 19. The device according to one of claims 1 to 17, characterized in that a collar-shaped abutment (16) is disposed on said pipe nipple (10) or catheter shaft (15).
- 15 20. The device according to one of claims 1 to 19, characterized in that a pressure sensor is contained in said interior space (20).
- 20 21. The device according to one of claims 1 to 20, characterized in that a medically active substance can be introduced into the interior space (8) enclosed by said tube segment (2).
- 25 22. The device according to claim 21, characterized in that said medically active substance has radioactive and/or chemotherapeutic properties.
23. The device according to either of claims 21 and 22, characterized in that said tube segment (2) is covered in at least one subregion by a shield (21) and in that said shielding suppresses or decreases the medicinal activity of the substance in the shielded region.
- 30 24. The device according to one of claims 1 to 20, characterized in that a radiographic contrast medium can be introduced into the interior space (8) enclosed by said tube segment (2).
- 35 25. The device according to claims 1 to 24, characterized in that said tube segment (2) has substances or bodies affixed to its surface.
26. The device according to claim 25 with substances affixed to its surface, characterized in that said substances are contained in at least one receptacle or support that is connected to said tube segment.

27. The device according to claim 26, characterized in that said substances are constituted by radioactive or chemotherapeutic agents.
  - 5 28. The device according to claim 25 with bodies affixed to its surface, characterized in that said bodies are constituted by electrodes conducted to the outside.
-